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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,839	02/19/2002	James D. Vick JR.	2002-IP-006435	6566
7576	7590	05/12/2005	EXAMINER	
HALLIBURTON ENERGY SERVICES			GAY, JENNIFER HAWKINS	
P.O. BOX 819052			ART UNIT	
DALLAS, TX 753819052			PAPER NUMBER	
			3672	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,839

Applicant(s)

VICK, JAMES D.

Examiner

Jennifer H Gay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) See Continuation Sheet is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-16, 76-85, 87, 89, 92, 97-101, 147-149 and 256 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/05</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1-10,12-16,30,31,38-45,52-85,87,89,92,97-101,108-118,121,124,131,132,147-149,153,164,166,177,179,190,192-194,205-207,218-220 and 256.

Continuation of Disposition of Claims: Claims allowed are 30,31,38-45,52-75,108-118,121,124,131,132,153,164,166,177,179,190,192-194,205-207 and 218-220.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7-10, 12-16, 76-80, 82-85, 97-101, 147-149, and 256 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0997676 A2 (referred to hereafter as Sooudi).

*Regarding claims 1, 76, 77:* Sooudi discloses a valve that includes the following features:

- An actuator **58** having an actuator member.
- An operating member **16**, which is displaced to operate the valve.
- A magnetic coupling **74, 90** between the actuator and the operating member.
- The actuator member is a piston that displaces in response to a differential pressure between a line **54** connected to the valve and pressure in an annulus **28** surrounding the valve.

*Regarding claims 2-4, 15, 78, 79, 100, 256:* The operating member is pressure isolated from the piston by a rigid, pressure isolation barrier **34** eliminating the need for dynamic seals between the piston and the operating member.

*Regarding claims 4, 5, 79, 80, 100:* The magnetic coupling translates displacement from the piston to the operating member across the barrier where the coupling includes a first magnetic device **74** associated with the piston and a second magnetic device **90** associated with the operating member.

*Regarding claims 7, 82:* The operating member is pressure-balanced.

*Regarding claims 8-10, 83-85:* The valve includes a flow passage extending through the valve (Figure 2) that is isolated from the line and from the annulus without the use of dynamic seals.

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*Regarding claims 12, 13, 97, 98:* Sooudi discloses a method for using the above valve that involves displacing the piston and translating the motion to the operating member of the valve via the magnetic coupling.

*Regarding claim 14, 99:* A pressure differential exists between the first and second magnets.

*Regarding claims 16, 101:* The magnets are permanent magnets.

*Regarding claims 147-149:* The pressure differential is between two lines 54, 92 connected to the valve where the first line is in communication with the annulus and the second line is in communication with an internal flow passage of the valve.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 81, 87, 89, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sooudi in view of Deaton et al. (US 6,433,991).

*Regarding claims 6 and 81:* Sooudi discloses all of the limitations of the above claims except for valve being activated being a flapper valve.

Deaton et al. discloses a valve with a magnetic coupling. Deaton et al. further teaches that it is well known to use this type of tool to actuate a flapper valve (1:5-22, 2:56-61, 3:4-11).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the apparatus and method of Sooudi to actuate a flapper valve as taught by Deaton et al. in order to have used an actuator for the above well tools that was easily controlled.

*Regarding claims 87, 89, 92:* Sooudi discloses using a motor to displace the actuator member.

Deaton et al. further teaches that the apparatus includes a motor for rotating the assembly or actuator (Figures 10 and 11).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Sooudi to include the rotary motor taught Deaton et al. in order to have provided a means for rotating the apparatus downhole thus providing more control of the location and orientation of the well tool actuated by the apparatus.

### ***Allowable Subject Matter***

5. Applicant is advised that the Notice of Allowance mailed 30 November 2004 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

6. The indicated allowability of claims 1-10, 12-16, 76-85, 87, 89, 92, 97-101, 147-149, and 256 is withdrawn in view of the newly discovered reference(s) to EP 0997676 A2 which applicant provided in the IDS filed 25 April 2005. Rejections based on the newly cited reference(s) are given above.

7. Claims 30, 31, 38-45, 52-75, 108-118, 121, 124, 131, 132, 153, 164, 166, 177, 179, 190, 192-194, 205-207, and 218-220 are allowed.

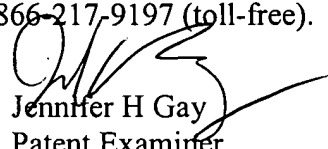
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

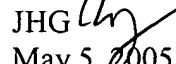
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer H Gay  
Patent Examiner  
Art Unit 3672



JHG  
May 5, 2005